

I claim and desire to protect by Letters Patent:

1. A method for reducing the microbial contamination comprising treating a food product subject to contamination by a enterotoxigenic *E. coli*, enteropathogenic *E. coli*, *Shigella spp.*, *Salmonella spp.*, *Listeria spp.*, *Campylobacter spp.*, *Aeromonas hydrophila*,  
 5 *Staphylococcus spp.*, *Bacillus spp.*, *Candida albicans*, *Hafnia spp.*, *Aeromonas spp.*, *Bacillus spp.*, *Citrobacter spp.*, *Klebsiella spp.*, *Micrococcus spp.*, *Achromobacter spp.*, *Proteus spp.*, *Brochothrix spp.*, *Bacillus pumilus*, *Arcobacter spp.*, *Enterococcus spp.*, *Pseudomonas spp.*, *Shewanella spp.*, *Enterobacter spp.*, *Deinococcus spp.*, *Flavobacterium spp.*, *Acinetobacter spp.*, *Methylobacterium radiotoleran*, *Cladosporium spp.*, *Mucor spp.*, *Rhizopus spp.*, *Penicillium*  
 10 *spp.*, *Geotrichium spp.*, *Sporotrichium spp.*, *Candida spp.*, *Torula spp.*, *Rhodotorula spp.*, *Cladosporium spp.*, *Mucor spp.*, *Rhizopus spp.*, *Penicillium spp.*, *Geotrichium spp.*, *Sporotrichium spp.*, *Candida spp.*, *Entamoeba histolytica*, *Naegleria fowleri*, *Giardia lamblia*, *Leishmania spp.*, *Trichomonas vaginalis*, *Trypanosoma spp.*, *Plasmodium spp.*, or *Taxoplasma spp.* microbe with a sufficient amount of a defined dispersion of lactoferrin  
 15 immobilized on a naturally occurring substrate via the N-terminus region of the lactoferrin to reduce contamination by the microbe.

2. The method in accordance with claim 1 wherein the microbe is a *Shigella dysenteriae*, *Shigella flexneri*, *Salmonella typhimurium*, *Salmonella abony*,  
 20 *Salmonella dublin*, *Salmonella hartford*, *Salmonella kentucky*, *Salmonella panama*, *Salmonella pullorum*, *Salmonella rostock*, *Salmonella thompson*, *Salmonella virchow*, *Listeria monocytogenes*, *Campylobacter jejuni*, *Staphylococcus aureus*, *Staphylococcus hyicus*, *Staphylococcus epidermidis*, *Staphylococcus hominis*, *Staphylococcus warneri*, *Staphylococcus xylosus*, *Staphylococcus chromogenes*, *Bacillus cereus*, *Bacillus subtilis*,  
 25 *Brochothrix thermospacta*, *Arcobacter butzleri*, *Enterococcus faecium*, *Pseudomonas fluorescence*, *Shewanella putrefaciens*, *Enterbacter cloa*, *Deinococcus radiopugnans*, *Deinococcus radiodurans*, *Deinobacter grandis*, *Flavobacterium aquatile*, *Acinetobacter baumannii*, *Acinetobacter calcoaceticus*, or *Acinetobacter radioresistens* microbe.

30 3. The method in accordance with claim 2 wherein the foodstuff is a meat product.

4. The method in accordance with claim 3 wherein the meat product is a beef product, a pork product, or a poultry product.

5 5. The method in accordance with claim 4 wherein the meat product is a primal cut, a subprimal cut, ready-to-eat or a case-ready meat product.

6. The method in accordance with claim 5 wherein the case-ready meat product is a chop, steak, ground meat or a cold cut.

10 7. The method in accordance with claim 5 wherein the case-ready meat product is a ready-to-eat meat product.

15 8. The method in accordance with claim 7 wherein the case-ready meat product is a sausage, salami, bologna, pepperoni, frankfurter, hotdog or a processed deli meat product.

9. A case-ready food product containing isolated lactoferrin immobilized on a naturally occurring substrate via the N-terminus region of the lactoferrin in a concentration between about 0.0001 and about 10 mg per gram of the foodstuff.

20 10. The case-ready food product in accordance with claim 9 wherein the composition is a meat product.

25 11. The case-ready food product in accordance with Claim 10 wherein the meat product is a beef product, a pork product, or a poultry product.

12. The method in accordance with claim 7 wherein the meat product is a frozen meat product additionally containing a vegetable, dairy, sauce, broth, or gravy ingredient.

30 13. The method in accordance with claim 5 wherein the concentration of lactoferrin on the surface of the meat product is from about 0.0001 to about 10 mg /sq.inch.

14. The method in accordance with claim 13 wherein the concentration lactoferrin on the surface of the composition subject to microbial contamination is from about 0.01 to about 1 mg/sq. inch.

5 15. The method in accordance with claim 1 further comprising treating the meat product with at least one other microbiological decontamination intervention.

16. The method in accordance with claim 15 wherein the other microbial decontamination intervention is treatment of the food product with ozone, thermal  
10 pasteurization, high pressure processing, electrolyzed oxidizing water, ionizing radiation or an antimicrobial agent.

17. The method in accordance with claim 5 wherein the microbe is a verotoxic  
15 *Escherichia coli*.

18. The method in accordance with claim 5 wherein the microbe is *Listeria monocytogenes*.

19. The case-ready food product in accordance with Claim 10 wherein the meat  
20 product is a frozen meat product that additionally contains a vegetable, dairy ingredient, sauce, broth, or gravy.

20. The case-ready food product in accordance with Claim 10 wherein the  
25 concentration of lactoferrin on the surface of the meat product is from about 0.01 to about 1 mg/sq. inch.